TCP NO. SV-45051
DATE MARCH 15, 1973
REVISION ORIGINAL
EFFECTIVITY SKYLAB 1

JOHN F. KENNEDY
SPACE CENTER

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SKYLAB 1
SPACE VEHICLE
TRANSFER OPERATIONS
VAB TO PAD

RELEASED
FOR AS-513

THIS TCP CONTAINS
HAZARDOUS OPERATIONS

KSC FORM 24-352 (R-67)

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SPACE VEHICLE
TRANSFER OPERATIONS
VAB TO PAD

THIS TCP CONTAINS HAZARDOUS OPERATIONS

PREPARED BY: 1-19-73
TEST INTEGRATION BRANCH (LA-PLN-1)

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KSC SAFETY OFFICE 3-26-73

for R. E. MOSER
MANAGER, TEST PLANNING (LA-PLN)

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TEST OUTLINE

SPACE VEHICLE TRANSFER VAB TO PAD

.0 OPERATIONS OBJECTIVES

'O SAFELY PREPARE AND TRANSFER THE SPACE VEHICLE/ML FROM THE VAB TO 'HE PAD.

..1 CRITERIA AND CONSTRAINTS

..1.1 GENERAL

'HE CRITERIA AND CONSTRAINTS PROVIDE GUIDELINES UPON WHICH A DECISION TO TRANSFER THE SPACE VEHICLE FROM THE VAB TO THE PAD WILL BE BASED.

1.1.2 WEATHER CRITERIA

THE LAUNCH OPERATIONS MANAGER AND REPRESENTATIVES OF THE TEST TEAM WILL BE PROVIDED A WEATHER FORECAST BY THE KSC STAFF METEOROLOGIST AT THE FOLLOWING TIME PERIODS

A. MOVE MINUS 5 DAYS.

B. MOVE MINUS 48 HOURS.

C. MOVE MINUS 24 HOURS.

D. MOVE MINUS 12 HOURS.

HOURLY WEATHER FORECAST CHANGES AFTER "MOVE MINUS 12 HOURS" WILL BE TRANSMITTED TO THE TEST SUPERVISOR.

1.1.2.1 WIND CONSTRAINTS

THE WIND CONSTRAINTS FOR THE TRANSFERRING THE ML (WITH VEHICLE) TO OR FROM THE PAD ARE 50 KNOTS GUSTS AT THE 530' LEVEL. FOR PLANNING PURPOSES, THE SPACE VEHICLE/ML WILL NOT BE TRANSFERRED FROM THE VAB TO THE PAD IF FORECASTED WINDS EXCEED THAT VALUE INCLUDING GUSTS IN THE KSC AREA DURING THE NEXT 24 HOURS. WIND CONSTRAINTS FOR THE MSS WHILE MOVING ON THE TRANSPORTER ARE 40.3 KNOTS GUSTS OR 28.5 KNOTS STEADY-STATE WIND AT THE 30' LEVEL. WIND CONSTRAINTS FOR DAMPER CHANGEOVER ARE 33.5 KNOTS GUSTS AT THE 530' LEVEL.

1.2 OPERATIONS DESCRIPTION

1.2.1 FLOW PLAN

THE FLOW PLAN FOR THIS OPERATION IS THE SKYLAB TRANSFER OPERATIONS - VAB TO PAD OPERATIONS INTERFACE CONTROL CHART WHICH ESTABLISHES THE SEQUENCING OF MAJOR OPERATIONS/ACTIVITIES AND IS THE BASELINE FOR PREPARATION OF PROCEDURES. THE TIME REQUIRED TO ACCOMPLISH EACH OF THE DEFINED ACTIVITIES IS BASED ON SV/ML MOVE EXPERIENCES ACQUIRED TO DATE. THE SEQUENCE OF INTEGRATED TRANSFER ACTIVITIES IS COMPRESSED INTO THE MAXIMUM NUMBER OF PARALLEL ACTIVITIES PERMITTED BY SAFETY CONSIDERATIONS AND TAKES INTO ACCOUNT MANPOWER, SHIFT CONSIDERATIONS, AND TIME-OF-DAY OF OPERATIONS. ALL POSSIBLE TRANSFER ACTIVITIES AT THE VAB ARE TO BE ACCOMPLISHED PRIOR TO ORDNANCE INSTALLATION AT THE LOCATION, ACCORDINGLY, ORDNANCE INSTALLATION IN THE VAB IS TO OCCUR AT THE LATEST POSSIBLE TIME PRIOR TO SPACE VEHICLE TRANSFER TO PAD. TRANSFER ACTIVITIES (AND PERSONNEL INVOLVED) ARE TO BE HELD TO A MINIMUM DURING THE PERIOD BETWEEN THE COMPLETION OF ORDNANCE INSTALLATION IN THE VAB AND ROLLOUT OF THE SV TO THE PAD. GENERALLY, THESE ACTIVITIES ARE SCHEDULED TO OCCUR OVER A WEEKEND WITH ROLLOUT OCCURRING EARLY MONDAY MORNING.

1.2.2 SAFETY

THE GROUND SAFETY PLAN, K-V-053, WILL APPLY DURING THIS OPERATION.

THE TRANSFER OPERATION IS HAZARDOUS DUE TO CONDITIONS IDENTIFIED BELOW. PERSONNEL ALLOWED IN THE DANGER AREA WILL BE CONTROLLED AND RESTRICTED. IN THE EVENT OF AN ELECTRICAL STORM IN THE AREA, ADDITIONAL HAZARDS TO PERSONNEL WILL EXIST AS DEFINED IN GROUND SAFETY PLAN.

THE FOLLOWING CONDITIONS ARE CONSIDERED TO CREATE A HAZARD TO PERSONNEL INVOLVED IN THE TRANSFER OPERATION.

A. ORDNANCE IS INSTALLED.

B. HIGH PRESSURE HYDRAULICS AND HIGH VOLTAGE ELECTRICAL LINES ARE PRESENT.

1.2.3 OUTLINE OF OPERATIONS

THE SPACE VEHICLE TRANSFER TO PAD OPERATIONS WILL BE PERFORMED AS AN INTEGRATED MOVE IN TWO (2) PARTS PART I, TRANSFER PREPS, SV PRE-ORDNANCE PREPS, AND SV ORDNANCE INSTALLATION; AND PART II, FINAL TRANSFER PREPS, MOVE, AND INITIAL PAD SECURING OPERATIONS.

1.2.3.1 PART I - TRANSFER PREPS PRIOR TO ORDNANCE INSTALLATION

ALL TRANSFER ACTIVITIES THAT CAN BE PERFORMED OR COMPLETED PRIOR TO ORDNANCE INSTALLATION ARE PLANNED FOR THIS PHASE TO MINIMIZE INVOLVEMENT OF PERSONNEL AND SCHEDULED ACTIVITIES WHILE ORDNANCE IS INSTALLED ON THE SV.

THE HIGH BAY AND ML WILL BE CLEARED OF ALL NON-ESSENTIAL EQUIPMENT AND PERSONNEL. ELECTRICAL SUPPORT SYSTEMS WILL BE SECURED, 9099 INTERFACE CABLES WILL BE DISCONNECTED, AND VAB PLYWOOD WILL BE INSTALLED. AT THE COMPLETION OF SC PREPS, LAUNCH VEHICLE PREPS FOR ORDNANCE, AND CONTROL AREA CLEARING, A HOLD WILL BE CALLED TO ACCOMPLISH THE INSTALLATION OF SV ORDNANCE.

1.2.3.2 PART II - TRANSFER AND FINAL SECURING

PART II WILL BEGIN WITH OPENING THE CONTROL AREA, EXCEPT PLATFORM A, TO MOVE PREPS PERSONNEL. ALSO, LV S-IC UPPER FAIRING INSTALLATION WORK WILL BEGIN AT THIS TIME. PLATFORM A CONTROL AREA WILL BE OPENED ONCE THE SEPARATION DETONATORS ARE INSTALLED.

SV WILL ACCOMPLISH POST ORDNANCE OPERATIONS AND ROLL OUT PREPS. S-IC PCMU GN2 INTERFACE WILL BE SECURED. SECURING OF LV ECS AND SERVICE ARMS 1-8 WILL BE ACCOMPLISHED, ALL VAB PLATFORMS WILL BE RETRACTED, THE VAB HIGH BAY HORIZONTAL DOORS WILL BE OPENED, THRESHOLD PLATES INSTALLED, AND THE CRAWLER TRANSPORTER POSITIONED AND MATED UNDER THE ML. DOMESTIC WATER, SAFE WASTE, CHILLED WATER, AND CHILLED WATER RETURN WILL BE DISCONNECTED. PATCHING OF THE FIRING ROOM TO THE PAD WILL BE ACCOMPLISHED AND THE VAB VERTICAL DOORS WILL BE OPENED. THE ML/CT POWER CABLES WILL BE CONNECTED. POWER WILL BE TRANSFERRED FROM THE VAB TO ML/CT, AND THE GROUND SUPPORT 13.8 KV AND 480 V POWER CABLES DISCONNECTED.

SV OBSERVERS WILL BE POSITIONED, FIREX SYSTEM WILL BE DISCONNECTED, AND THE CRAWLER TRANSPORTER WILL BE JACKED. THE ML WILL BE MOVED OUT OF THE VAB AND ONCE IT CLEARS THE STRUCTURE, THE LIGHTNING MAST WILL BE ERECTED AND ANEMOMETERS CONNECTED.

THE SV/ML WILL BE LOWERED TO TRAVEL HEIGHT AND THE TRANSFER TO PAD AREA WILL BE ACCOMPLISHED. AFTER THE SV/ML IS AT THE PAD AND POWER TRANSFERRED TO THE PAD, THE CHILLED WATER SUPPLY AND RETURN, SAFE WASTE, FIREX WATERS, AND FACILITIES ECS WILL BE CONNECTED TO THE PAD UTILITIES. THE PNEUMATIC SYSTEM WILL BE CONNECTED AND SAMPLED FOR CONTAMINANTS. COMM/INS CABLES, OIS, AND HARDLINE DATA CABLE CONNECTION WILL BE ACCOMPLISHED.

LIST OF REFERENCES

1. LAUNCH VEHICLE CONTROL PROCEDURE FOR TRANSFER OF SV TO THE PAD, V-20037.
2. SWS OPERATIONS, MOVE FROM VAB TO PAD, KS-0018.
3. SKYLAB SPACE VEHICLE TRANSFER OPERATIONS - VAB TO PAD INTERFACE CONTROL CHART (SL-1).
4. SKYLAB 1/SKYLAB 2 AND SUBSEQUENT LC-39 LAUNCH OPERATIONS INSTRUCTIONS, 600-26-0002.
5. SKYLAB/SATURN V SPACE VEHICLE TEST SUPERVISOR EMERGENCY PROCEDURES, SV-46051.
6. SKYLAB 1 TEST AND CHECKOUT PLAN, VOL. 1, KHB 8635.3/LO.
7. KSC CALL SIGN HANDBOOK, 630-23-0001.
8. GROUND SAFETY PLAN, KV-053.
9. SECURITY PLAN, KV-052.
10. SKYLAB PART I RD 20103.

ACCESS CONTROL

BECAUSE OF THE HAZARDOUS CONDITIONS WHICH EXIST DURING LV ORDNANCE INSTALLATION AND SPACE VEHICLE TRANSFER TO THE PAD OPERATIONS, CONTROL OF PERSONNEL WITHIN THE AREA OF TRANSFER OPERATIONS IS MANDATORY AND WILL BE UNDER THE DIRECTION OF THE TEST SUPERVISOR. ACCESS CONTROL WILL BE MAINTAINED IN THE VAB PRIOR TO MOVING. PERSONNEL LIMITS WILL BE KEPT TO A MINIMUM THROUGH THE USE OF SPECIAL ACCESS BADGES. THE NUMBER OF PERSONNEL EXPOSED TO HAZARDOUS OPERATIONS WILL BE CONTROLLED BY THE TEST SUPERVISOR AND KSC SAFETY. ANY CHANGES TO THE MANLOADING DURING THE PERFORMANCE OF THE TEST/OPERATION MUST HAVE THE CONCURRENCE OF THE KSC SAFETY REPRESENTATIVE. GROUND SAFETY PLAN, KV-053, AND THE SECURITY PLAN, KV-052/1, WILL GOVERN DURING THESE OPERATIONS.

INTERCOMMUNICATIONS INFORMATION

ALL-AREA-PAGING EM PA

TO BE USED FOR ALL AREA ANNOUNCEMENTS SUCH AS, PERSONNEL CLEARING FOR ORDNANCE OPERATIONS IN THE VAB OR FOR EMERGENCIES.

PAGING (CH.) 188 (PA)

TO BE USED FOR OPERATIONAL ANNOUNCEMENTS WITHIN THE OPERATIONAL AREA OF A SPECIFIC OIS MISSION BUS. PA OPERATES AT LAUNCH COMPLEX 39, INCLUDING THE VAB, LCC, AND PADS. PA DOES NOT GO TO THE CIF OR O&C BUILDINGS.

OPERATIONAL INTERCOMMUNICATIONS SYSTEM (OIS)

THE TEST AND CHECKOUT OPERATIONAL COMMUNICATIONS ARE UTILIZED AS ASSIGNED OR INDICATED IN THE PROCEDURE FOR THE TEST OPERATIONS. COORDINATION BY THE SPACE VEHICLE TEST SUPERVISOR WILL NORMALLY BE CONDUCTED OVER OIS CHANNEL 171. IF THE TEST SUPERVISOR IS UNABLE TO REACH AN ORGANIZATION ON OIS CHANNEL 171, ONLY THEN WILL HE SWITCH TO THAT ORGANIZATION'S PRIMARY ASSIGNED CHANNEL. TEST SUPERVISORY PERSONNEL SHOULD ALWAYS BE AVAILABLE ON THE FOLLOWING CIRCUITS

SPACE VEHICLE TEST SUPERVISOR (NASA-LO)	171
TEST SUPPORT CONTROLLER (NASA-TS)	111
LAUNCH VEHICLE TEST CONDUCTOR (NASA-LV)	161
SWS SPACECRAFT (NASA-LS)	183
SYSTEMS SAFETY (NASA-SF)	125
S-IC TEST CONDUCTOR (BOEING)	131
S-II TEST CONDUCTOR (NR)	141
IU TEST CONDUCTOR (IBM)	151
INSTRUMENTATION CONTROLLER (NASA-IN)	116
SUPPORT CONTROLLER (NASA-SO)	112
INSTALLATION SUPPORT CONTROLLER (NASA-IS)	114

SPACE VEHICLE TEST SUPERVISOR OIS SPECIAL COORDINATION CHANNEL

CHANNEL 174 HAS BEEN DELEGATED TO THE SV TEST SUPERVISOR AS AN AUXILIARY CHANNEL. THIS CHANNEL, IS CO-SHARRED WITH ATM A&PCS MAY BE UTILIZED AT THE DISCRETION OF THE SV TEST SUPERVISOR TO RESOLVE PROBLEMS INVOLVED WITH TEST SUPPORT ACTIVITIES AND FOR CONFERENCE DISCUSSIONS WITH THE KSC WEATHER STATION.

SUPERINTENDENT OF RANGE OPERATIONS (SRO):

THE SRO HAS ACCESS TO OIS CHANNELS 111, 154, 164, 161, AND 171. THE TEST SUPERVISOR WILL REQUEST THE SRO TO SWITCH TO ONE OF THESE CHANNELS WHEN HIS ACTIVE PARTICIPATION IS REQUIRED. NORMALLY, THE SRO WILL MONITOR ROUTINE TEST COMMUNICATIONS WITH THE TEST SUPERVISOR.

PAD TEST SUPERVISOR (PVTS):

AN ASSISTANT TEST SUPERVISOR WILL BE LOCATED AT THE PAD DURING TIMES OF OPEN PAD CONDITIONS TO MONITOR THE OPERATIONS AND ASSESS PROBLEM AREAS FOR THE TEST SUPERVISOR. HE WILL COORDINATE OPERATIONS AT THE PAD FOR THE TEST SUPERVISOR AND WILL UTILIZE OIS CHANNEL 171.

OIS SYSTEM TROUBLE REPORTING:

TO REPORT TROUBLES OR REQUEST ASSISTANCE IN THE USE OF THE OIS SYSTEM, CONTACT YROL (O&C, CIF) OR JROL (ALL OTHER AREAS ON OIS CHANNEL 117. IF TROUBLE PREVENTS USE OF OIS, CONTACT COMMUNICATIONS CONTROL CONSOLE ON 867-4141.

SKYLAB
TRANSFER OIS COMMUNICATION ASSIGNMENTS

CH. 111 TEST SUPPORT CONTROLLER TS	CH. 121 SERVICE ARM MECHANIC, LAUNCHER SYSTEMS LV
CH. 112 SUPPORT CONTROLLER SO	CH. 122 SUPPORT OPERATIONS, LAUNCHER SYSTEMS SO
CH. 113 TEST SUPERVISOR/LAUNCH VEHICLE TEST CONDUCTOR LO/LV	
CH. 114 LAUNCH VEHICLE STAGE TEST CONDUCTORS LV	
CH. 115 OBSERVERS AND CRAWLER OPERATIONS SO	
CH. 116 SPACECRAFT TEST CONDUCTOR LS	
CH. 117 OIS CONTROL ENGINEER, OTV CONTROL ENGINEER IN	
CH. 118 FACILITY & ENVIRONTAL SYSTEMS, CT/ML MEAS IN	

NOTE-- INSTRUMENTATION CONTROLLER (IN) WILL BE LOCATED DURING TRANSFER ON OIS CHANNEL 15B, NOT ON MICROWAVE.

HEADSET INTEGRITY CHECK

A HEADSET, HEADSET CORD, AND EXTENDER CABLE INTEGRITY CHECK WILL BE MADE BY EACH USER OF THE OIS SYSTEM EACH TIME HE COMES ON STATION TO SUPPORT THE SPACE VEHICLE LAUNCH COUNTDOWN.

WHEN COMING ON STATION, HE WILL REPORT TO HIS IMMEDIATE SUPERVISOR USING ONE OF THE FOLLOWING PROCEDURES

A. IF THE HEADSET IS CONNECTED DIRECTLY TO AN OIS-RF END INSTRUMENTS

1. SELECT YOUR SUPERVISOR'S PRIME CHANNEL ON THE ACTIVE DIAL.

2. REPORT TO YOUR SUPERVISOR STATING CALL SIGN AND POSITION.

3. SELECT CHANNEL 274 ON THE MONITOR DIAL. A 1000 HZ TONE WILL BE HEARD.

4. GIVE A SHORT COUNT, E.G. 1, 2, 3, 4, 5, --- 5, 4, 3, 1, 1 ON YOUR ACTIVE CHANNEL.

5. THE SUPERVISOR MONITOR DIAL SHOULD NOT BE SET TO CHANNEL 274.

IF THE SUPERVISOR HEARS THE 1000 HZ TONE, THE HEADSET IS UNSATISFACTORY AND SHOULD BE REPORTED THROUGH ESTABLISHED CHANNELS.

IF THE SUPERVISOR DOES NOT HEAR THE 1000 HZ TONE, THE HEADSET IS SATISFACTORY.

B. IF THE HEADSET IS CONNECTED TO AN EXTENDER CABLE

1. REPEAT ITEMS A.1 THROUGH 5.

2. IF THE RESULTS ARE UNSATISFACTORY (SUPERVISOR HEARS 1000 HZ TONE), THE FOLLOWING IS REQUIRED TO ISOLATE THE PROBLEM TO HEADSET OR EXTENDER CABLE

(A) REMOVE HEADSET FROM EXTENDER CABLE AND CONNECT DIRECTLY TO NEAREST AVAILABLE OIS-RF INSTRUMENTS.

(B) REPEAT ITEMS A.1 THROUGH 5.

(C) IF RESULTS ARE STILL UNSATISFACTORY, THE PROBLEM IS IN THE HEADSET OR HEADSET CORD.

(D) IF THE RESULTS ARE SATISFACTORY, THE PROBLEM IS IN THE EXTENDER CABLE.

THE UNSATISFACTORY COMPONENT SHOULD BE REPORTED THROUGH ESTABLISHED CHANNELS.

NOTE

THIS CHECK IS APPLICABLE AT THE O&C AND LC-39.

THOSE USERS HAVING AUDIO CAPABILITY (TYPE 51 UNIT) SHOULD NOT ACCESS ANY OIS CHANNELS THROUGH THE AUDIO SYSTEM FOR THIS CHECK.

END OF HEADSET INTEGRITY CHECK

SKYLAB OIS CHANNELIZATION

TS 111 SL-1 TEST SUPPORT CONTROLLER C R	TS 121 SL-2 TEST SUPPORT CONTROLLER C R	LV 131 SL-1 S-IC TEST CONDUCTOR	LV 141 SL-1 S-II TEST CONDUCTOR	LV 151 SL-1 IU TEST CONDUCTOR	LV 161 SL-1 LAUNCH VEHICLE TEST COND. R U	LO 171 SL-1 TEST SUPERVISOR R U	LO 181 SL-2 TEST SUPERVISOR R U	LS 211 SL-1 SWS ENGINEER- ING	LS 221 SL-2 CSM PAD LEADER AND Q.C.	LV 231 SL-2 S-IB TEST CONDUCTOR	LV 241 SL-2 S-IVB TEST CONDUCTOR	LV 251 SL-2 IU TEST CONDUCTOR	LV 261 SL-2 LAUNCH VEHICLE TEST COND. R U
SO 112 SL-1 SUPPORT CONTROLLER C	SO 122 SL-2 SUPPORT CONTROLLER C	LV 132 SL-1 S-IC MECHANICAL	LV 142 SL-1 S-II MECHANICAL	LV 152 SL-1 IU MECHANICAL DDAS AND GRND.MEAS.	LV 162 SL-1 FLIGHT CONTROL	LS 172 SL-1 ATM PWR & NETWORKS	LS 182 SL-1 ATM C&D/EXPMTS SLE NOTE #1	LS 212 SL-2 CSM SPACECRAFT TEST COND. U	LS 222 SL-2 CSM TEST PROJECT ENGINEER	LV 232 SL-2 S-IB MECHANICAL	LV 242 SL-2 S-IVB MECHANICAL	LV 252 SL-2 IU MECHANICAL DDAS AND GRND. MEAS.	LV 262 SL-2 FLIGHT CONTROL
IN 113 STV CONTROL ENGINEER C	SO 123 SL-1 PAD OPERATIONS	LV 133 SL-1 S-IC ELECTRICAL	LV 143 SL-1 S-II ELECTRICAL	LV 153 SL-1 IU ELECTRICAL AND EDS	LV 163 SL-1 FLIGHT COMPUTER	LS 173 SL-1 ATM STE U	LS 183 SL-1 SWS SPACECRAFT TEST COND. U	LS 213 SL-2 CSM TROUBLE SHOOTING	LS 223 SL-2 CSM ELECTRICAL POWER SYSTEM	LV 233 SL-2 S-IB ELECTRICAL	LV 243 SL-2 S-IVB ELECTRICAL	LV 253 SL-2 IU ELECTRICAL AND EDS	LV 263 SL-2 FLIGHT COMPUTER
LS 114 INSTALLA- TION SUPPORT CONTROLLER C	TS 124 TROUBLE SHOOTING IS PHOTO	LV 134 SL-1 S-IC INSTRU- MENTATION & HGD	LV 144 SL-1 S-II INSTRU- MENTATION	LV 154 SL-1 IU INSTRU- MENTATION R U	LV 164 SL-1 RF & TM (INTE- GRATED) R U	LS 174 SL-1 ATM A & PCS LO WEATHER	LS 184 SL-1 AM/MDA/OWS STE	LS 214 SL-2 CSM COMM., INST., AND BIOMED. U	LS 224 SL-2 CSM FUEL CELL AND CRYO	LV 234 SL-2 S-IB INSTRU- MENTATION & HGD	LV 244 SL-2 S-IVB INSTRU- MENTATION	LV 254 SL-2 IU INSTRU- MENTATION R U	LV 264 SL-2 RF & TM (INTE- GRATED) R U
SO 115 CRAWLER OPERATIONS C	SF 125 PAD SAFETY	LV 135 SL-1 PROPEL- LANT (OXIDIZER)	LV 145 SL-1 PROPEL- LANT (FUEL)	LV 155 SL-1 RCA-110, CDC, DEE-6 AND AUX. POWER	LV 165 SL-1 TROUBLE SHOOTING & DRSC PREP	LS 175 SL-1 ATM INSTRU- MENTATION/ U TM	LS 185 SL-1 AM/MDA/OWS EPS	LS 215 SL-2 CSM G&N U	LS 225 SL-2 CSM STABILIZA- TION CONT. SYSTEM	LV 235 SL-2 PROPEL- LANT (OXIDIZER)	LV 245 SL-2 PROPEL- LANT (FUEL)	LV 255 SL-2 RCA-110, CDC, DEE-6 AND AUX. POWER	LV 265 SL-2 TROUBLE SHOOTING & DRSC PREP
IN 116 INSTRU- MENTATION CONTROLLER C	SO 126 SL-2 PAD OPERATIONS	LV 136 SL-1 SERVICE ARMS, TSM AND HDA	LV 146 SL-1 IWS, ESP, & PNEU	LV 156 STABILIZER	LV 166 LAUNCH VEHICLE Q. C.	LS 176 SL-1 AM/MDA/OWS TACS/PNEU (LV*)	LS 186 SL-1 AM/MDA/OWS INSTRUMEN- TATION/TM U	LS 216 SL-1 AM/MDA/OWS REFG/THERM CONT SYS (LV*)	LS 226 SL-2 CSM PROPULSION/ REACTION CONT. SYS	LV 236 SL-2 SERVICE ARMS	LV 246 SL-2 IWS & PNEU	LV 256 SL-2 S-IB FIRING ACCESSOR. & ESP	LV 266 SL-2 GSE TEST CONDUCTOR
LS 117 OIS CONTROL ENGINEER C U	SO 127 PNEUMATICS	LV 137 SL-1 ECS	SO 147 SL-1 MOBILE LAUNCHER STRUCTURE	IN 157 DATA DISPLAY	LS 167 SL-1 SWS Q. C.	LS 177 SL-1 AM/MDA/OWS EXPMTS/ BIOMED (LV*)	LS 187 SL-1 AM/MDA/OWS COMM U	LS 217 SL-1 AM/MDA/OWS ECS/ COOLANT (LV*)	LS 227 SL-2 ENVIRON- MENTAL CONTROL SYSTEM	LV 237 SL-2 ECS	SO 247 SL-2 MOBILE LAUNCHER STRUCTURE	SO 257 MOBILE SERVICE STRUCTURE OPERATIONS	IN 267 KSC TIMING
LV 118 FACILITY AND ENVIRON. MEAS. C	IN 128 FACILITY AND ENVIRON. MEAS.	LV 138 SL-1 LSE ELECTRICAL	IN 148 CIF TELEMETER GROUND STATION	IN 158 CIF TELEMETER GROUND STATION	LS 168 SL-1 SWS ACE/GSE	LS 178 SL-1 AM/MDA/OWS WATER/FOOD MGMT (LV*)	LS 188 SL-1 & SL-2 PAGING	LS 218 SL-1 AM/MDA/OWS CREW/VENT/ WASTE SYS (LV*)	LS 228 SL-2 CSM ACE/GSE	LV 238 SL-2 LSE ELECTRICAL	LS 248 SL-1 SPACECRAFT OPERATIONS SWS	LS 258 SL-1 SPACECRAFT OPERATIONS SWS	LS 268 SL-1 SPACECRAFT OPERATIONS SWS

C: Available to CT/ML by microwave during transfer operations.
(LV*): Channels assigned to LV Service Arm Ops during heavy SL-1 and SL-2 Service Arm activities at the pad.
R: Tied to EDR.
U: Tied to GMIL.

NOTE #1: Ch. 182 will be available for "CSM AEROMED" starting at SL-1 launch plus one hour.

NOTE #2: SL-2 Ch. assignments will be used for SL-3/4/R.
For SL-3/4/R, SL-1 Ch. will be available for discretionary use by the designated directorates.

Jan. 19, 1973

NASA KSC JAN 7

OPERATING STATIONS

TEST CONDUCTORS AND TEST MANAGEMENT PERSONNEL

DLO	LAUNCH DIRECTOR (NASA)
LOM	LAUNCH OPERATIONS MANAGER (NASA)
CVTS	SPACE VEHICLE TEST SUPERVISOR (NASA)
CLTC	LAUNCH VEHICLE TEST CONDUCTOR (NASA)
CTSC	TEST SUPPORT CONTROLLER (NASA)
CUTC	IU STAGE TEST CONDUCTOR (IBM)
C1TC	S-IC STAGE TEST CONDUCTOR (BOEING)
C2TC	S-II STAGE TEST CONDUCTOR (NR)
BOSC	SUPPORT CONTROLLER (NASA)
BTIS	INSTALLATION SUPPORT CONTROLLER (NASA)
CGIC	INSTRUMENTATION CONTROLLER (NASA)

SYSTEMS SAFETY

CPSS	SYSTEMS SAFETY

LAUNCH OPERATIONS SECURITY

CTNS	SECURITY CONTROLLER

RANGE SUPPORT

CRSS	RANGE SAFETY SUPERVISOR'S PANEL
GMIL	UNIFIED S-BAND GROUND STATION
RSO	RANGE SAFETY OFFICER
SRO	SUPERINTENDENT OF RANGE OPERATIONS

FLIGHT CONTROL (MCC)

HFLT	FLIGHT DIRECTOR, HOUSTON

OPERATIONS PERSONNEL

BEACH	
BOSS	LAUNCH SITE RECOVERY FORCES COMMANDER
BGCC	GROUND COMPUTER COMPLEX FIRING ROOM
BLTM	TM SYSTEMS ENGINEER
BLRF	LV DRSCR SYSTEMS ENGINEER
BPHO	PHOTO COORDINATOR
BOTV	OTV CONTROLLER
BWIC	WIDEBAND SYSTEM CENTER/AAS POWER-RECORDER OPERATOR

CEDK	CRT KEYBOARD - EDS DCC OPERATOR
CLGK	CRT KEYBOARD - GUIDANCE COMPUTER
CLVN	VEHICLE NETWORKS CONSOLE
CS,	TEST CONDUCTOR, S/C ASST.
CSFP	SERVICE ARMS POWER PANEL
CUES	EDS PREPARATION
CUEV	EVENTS DISPLAY (IU)
CUNP	NETWORKS PANEL
CUSW	NETWORKS SWITCH SELECTOR PANEL
CWCP	INDUSTRIAL WATER CONTROL PANEL
CLMS	MECHANICAL SYSTEMS ENGINEER
C1CS	CUTOFF SENSORS PANEL
C1DP	PROPELLANT DISPERSION AND ORDNANCE (DESTRUCT) PANEL
C1FC	FLIGHT CONTROL RECORDERS
C1FP	FIRING CONSOLE AND COMPONENT TEST PANEL
C1LO	LOX SYSTEM PANEL
C1NP	NETWORKS PANEL (S-IC)
C1PP	POWER PANEL (DC)
C1SP	SEQUENCER PANEL
C2DP	PROPELLANT DISPERSION PANEL
C2NP	NETWORKS PANEL (S-II)
ETMS	TELEMETRY GROUND STATION (CIF)
HARDTOP	PAD EGRESS TEAM COMMANDER
LIEF	LAUNCH INFORMATION EXCHANGE FACILITY
MACE	ACE TEST DIRECTOR, GE
MLFC	FUEL CELL UNIT 12, S/C
MTPE	NR TEST PROJECT ENGINEER, UNIT 10, S/C
PEHE	ENVIRONMENTAL HEALTH ENGINEER
PVSS	SYSTEMS SAFETY (PAD)
PVTS	PAD TEST SUPERVISOR
SEHZ	MSS HAZARDS MONITOR OPERATOR
UGCU	WATER GLYCOL CONTROL UNIT OPERATOR
UWGR	GLYCOL REFRIGERATION UNIT, S/C
VUMS	IU MEASURING GSE STATION
VURF	C-BAND RADAR AND CCS CHECKOUT
Z1	ABORT MONITOR VISUAL OBSERVER UC-4 (PAD A), UC-12 (PAD B)
Z2	ABORT MONITOR VISUAL OBSERVER UC-16 (PADS A & B)
Z3	ABORT MONITOR VISUAL OBSERVER UC-17 (PADS A & B)

OTV PROVISIONS

CAMERA NO.	CAMERA LOCATION	OBSERVATION
AA-3	EAST SIDE OF PAD A - (CAMERA SITE 2)	SPACE VEHICLE AND ML
AA-4	WEST SIDE OF PAD A - (CAMERA SITE 5)	SPACE VEHICLE AND ML
ROOF	VAB ROOF	SPACE VEHICLE AND ML

LIST OF ABBREVIATIONS/ACRONYMS

AAC	ABORT ADVISORY CHANNEL
AAS	ABORT ADVISORY SYSTEM
ACE	ACCEPTANCE CHECKOUT EQUIPMENT
ACS	ASTRO-COMMUNICATION SYSTEM
AFETR	AIR FORCE EASTERN TEST RANGE
AIU	ABORT INTERFACE UNIT
ALC	ASTRO LAUNCH CIRCUIT
ALDS	APOLLO LAUNCH DATA SYSTEM
ALSA	ASTRONAUT LIFE SUPPORT ASSEMBLY
AM	AMPLITUDE MODULATED, AIRLOCK MODULE
APS	AUXILIARY PROPULSION SYSTEM (SWS)
ATM	APOLLO TELESCOPE MOUNT
ATMDC	ATM DIGITAL COMPUTER
BP	BOILERPLATE
BPC	BOOST PROTECTIVE COVER
CADFISS	COMPUTATION AND DATA FLOW INTEGRATED SUBSYSTEM
CASTS	COUNTDOWN AND STATUS TRANSMITTING SYSTEM
CB	CIRCUIT BREAKER
CBRM	CHARGER BATTERY RELAY MODULE
CCATS	COMMUNICATIONS, COMMAND, AND TELEMETRY SYSTEM
CCC	COMPLEX CONTROL CENTER
CCF	CONVERTER COMPRESSOR FACILITY
CCS	COMMAND COMMUNICATIONS SYSTEM
C&D	CONTROL AND DISPLAY (ATM)
CD	COUNTDOWN
CD&SC	CENTRAL DISTRIBUTION AND SWITCHING CENTER
CDC	COUNTDOWN CLOCK
CDDT	COUNTDOWN DEMONSTRATION TEST
CDF	CONFINED DETONATING FUSE
CDU	COUPLING DATA UNIT
C2F2	CREW COMPARTMENT FIT AND FUNCTION
CH	CHANNEL
CIF	CENTRAL INSTRUMENTATION FACILITY
CIU	COMPUTER INTERFACE UNIT
CMD	COMMAND
CMGS	CONTROL MOMENT GYRO SUBSYSTEM
COAS	CREW OPTICAL ALIGNMENT SIGHT
COMM	COMMUNICATION
C/O	CHECKOUT
CRDU	COMMAND RELAY DRIVER UNIT
CRG	CONTROL RATE GYRO
CRT	CATHODE RAY TUBE
CRYO	CRYOGENIC
C/T	CRAWLER/TRANSPORTER
C&W	CAUTION AND WARNING

DA	DEPLOYMENT ASSEMBLY
DADE	DIGITAL ACQUISITION AND DECOMMUTATION EQUIPMENT
DAS	DATA ACQUISITION SYSTEM
DB	DESIGN BURST
DC	DIRECT CURRENT
DCS	DIGITAL COMMAND SYSTEM
DDAS	DIGITAL DATA ACQUISITION SYSTEM
DEE	DIGITAL EVENTS EVALUATOR
DPDM	DOUBLE PULSE DURATION MODULATION
DPF	DIFFERENTIAL PRESSURE FEEDBACK
DRSCS	DIGITAL RANGE SAFETY COMMAND SYSTEM
DRSCR	DIGITAL RANGE SAFETY COMMAND RECEIVER
DTC	DESIGN/TEST CONTRACTOR OR CENTER
DTCS	DIGITAL TEST COMMAND SYSTEM
DTMS	DIGITAL TEST MONITORING SYSTEM
DTS	DATA TRANSMISSION SYSTEM
DTVC	DIGITAL TRANSMISSION AND VERIFICATION CONVERTER
DUA	DIGITAL UPLINK ASSEMBLY
EBW	EXPLOSIVE BRIDGE WIRE
E/C	ENVIRONMENTAL CHAMBER
ECS	ENVIRONMENTAL CONTROL SYSTEM
EDC	EXPERIMENT DEVELOPMENT CENTER
EDS	EMERGENCY DETECTION SYSTEM
EEAP	EMERGENCY EGRESS AIR PACK
EGADS	ELECTRONIC GROUND AUTOMATIC DESTRUCT SYSTEM
EIS	EXPERIMENT INTEGRATION CENTER
E-M	ELECTRO-MECHANICAL
EMC	ELECTROMAGNETIC COMPATIBILITY
EPC	EXPERIMENT POINTING CONTROL
EPS	ELECTRICAL POWER SYSTEM
ERD	EXPERIMENT REQUIREMENTS DOCUMENT
EREP	EARTH RESOURCES EXPERIMENT PACKAGE
ESE	ELECTRICAL SUPPORT EQUIPMENT
ESP	ENGINE SERVICE PLATFORM
ESS	EXPERIMENT SUPPORT SYSTEM
ETR	EASTERN TEST RANGE
EVA	EXTRAVEHICULAR ACTIVITY
FAS	FIXED AIRLOCK SHROUD
FCC	FLIGHT CONTROL COMPUTER (LV)
FDS	FLUID DISTRIBUTION SYSTEM
FM	FREQUENCY MODULATION
FMS	FOOD SERVICE MANAGEMENT (OWS)
FR	FIRING ROOM (LCC)
FSRT	FLIGHT SYSTEMS REDUNDANCY TEST
FT	FUNCTIONAL TEST, FOOT
FTR	FINAL TEST RACK
FWD	FORWARD

G&C	GUIDANCE AND CONTROL
GET	GROUND ELAPSED TIME
GETS	GROUND EQUIPMENT TEST SET
GHE	GASEOUS HELIUM
GH2	GASEOUS HYDROGEN
GMT	GREENWICH MEAN TIME
GSFC	GODDARD SPACE FLIGHT CENTER
GN2	GASEOUS NITROGEN
GO2 (GOX)	GASEOUS OXYGEN
GSE	GROUND SUPPORT EQUIPMENT
HCO	HARVARD COLLEGE OBSERVATORY
HDA	HOLDDOWN ARM
HGDS	HAZARDOUS GAS DETECTION SYSTEM
HOSC	HUNTSVILLE OPERATIONS SUPPORT CENTER
HPG	HIGH PRESSURE GAS
HSS	HABITABILITY SUPPORT SYSTEM
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
H2	HYDROGEN
H2O	WATER
HZ	HERTZ (CYCLES PER SECOND)
ID	IDENTIFICATION
IEU	INTERFACE ELECTRONICS UNIT
IGOR	INTERCEPT GROUND OPTICAL RECORDER
ILCA	INVERTER LIGHT CONTROL ASSEMBLY (AM/MDA)
IMU	INERTIAL MEASURING UNIT
IP	IMPACT PREDICTOR
IRIG	INERTIAL RATE INTEGRATION GYRO; INTER-RANGE INSTRUMENTATION GROUP
IU	INSTRUMENT UNIT
IVA	INTRA VEHICLAR ACTIVITY
IWS	INDUSTRIAL WATER SYSTEM
KSC	KENNEDY SPACE CENTER
LBNP	LOWER BODY NEGATIVE PRESSURE
LBR	LOW BIT RATE
LC	LAUNCH COMPLEX
LCC	LAUNCH CONTROL CENTER
LCG	LIQUID COOLED GARMENT
LH2	LIQUID HYDROGEN
LIEF	LAUNCH INFORMATION EXCHANGE SYSTEM
LO	LAUNCH OPERATIONS
LOM	LAUNCH OPERATIONS MANAGER
L/O	LIFTOFF
LO2(LOX)	LIQUID OXYGEN
LP	LOW PRESSURE
LRR	LAUNCH READINESS REVIEW

LS	SPACECRAFT OPERATION (OFFICE SYMBOL)
LS	LINEAR SHAPED CHARGE
LSE	LAUNCH SUPPORT EQUIPMENT
LSR	LAUNCH SITE RECOVERY
LUT	LAUNCH UMBILICAL TOWER
LV	LAUNCH VEHICLE
LVDA	LAUNCH VEHICLE DATA ADAPTER
LVDC	LAUNCH VEHICLE DIGITAL COMPUTER
LVO	LAUNCH VEHICLE OPERATIONS
MAP	MESZ ACCEPTANCE PULSE
MCC	MISSION CONTROL CENTER
MDA	MULTIPLE DOCKING ADAPTER
MDF	MILD DETONATING FUSE
MHZ	MEGA-HERTZ
MILA	MERRITT ISLAND LAUNCH AREA
MITTS	MOBILE IGOR TRACKING TELESCOPE SYSTEM
ML	MOBILE LAUNCHER
MODEM	MODULATOR/DEMODULATOR
MOTS	MOBILE OPTICAL TRACKING SYSTEM
MSFC	MARSHALL SPACE FLIGHT CENTER
MSFN	MANNED SPACE FLIGHT NETWORK
MSOB	MANNED SPACECRAFT OPERATIONS BUILDING
MSS	MOBILE SERVICE STRUCTURE
OA	ORBITAL ASSEMBLY
OAT	OVERALL TEST
O2	OXYGEN
OIS	OPERATIONAL INTERCOMMUNICATIONS SYSTEM
OICC	OPERATIONS INTERFACE CONTROL CHART
OTV	OPERATIONAL TELEVISION
OWS	ORBITAL WORKSHOP
PA	PUBLIC ADDRESS
PAM	PULSE AMPLITUDE MODULATION
PCG	POWER CONDITIONING GROUP (AM)
PCM	PULSE CODE MODULATION
PCMD	PARTICLE COUNT MONITORING DEVICE
PCS	POINTING CONTROL SYSTEM (ATM)
PD	PROPELLANT DISPERSION
PDS	PROPELLANT DISPERSION SYSTEM
PI	PRINCIPAL INVESTIGATOR
PREPS	PREPARATIONS
PS	PAYLOAD SHROUD.
PSI	POUNDS PER SQUARE INCH
PTCR	PAD TERMINAL CONNECTION ROOM
PTCS	PROPELLANT TANKING COMPUTER SYSTEM
PU	PROPELLANT UTILIZATION
PYRO	PYROTECHNIC

QC	QUALITY CONTROL
QD	QUICK DISCONNECT
QLDS	QUICK LOOK DATA STATION
RACS	REMOTE AUTOMATIC CALIBRATION SYSTEM
RCS	REACTION CONTROL SYSTEM
RF	RADIO FREQUENCY
RICS	RANGE INSTRUMENTATION CONTROL SYSTEM
RLC	ROTATING LITTER CHAIR
RP-1	ROCKET PROPELLANT - 1
ROTI	RECORDING OPTICAL TRACKING INSTRUMENT
RSCR	RANGE SAFETY COMMAND RECEIVER
RSO	RANGE SAFETY OFFICER
RSS	REFRIGERATION SUBSYSTEM
RTC	REAL TIME COMMAND
RTCC	REAL TIME COMPUTER COMPLEX (MCC)
RTCS	REAL TIME COMPUTER SYSTEM (AFETR)
S&A	SAFE AND ARM
SA	SERVICE ARM
SAL	SCIENTIFIC AIRLOCK
SAS	SOLAR ARRAY SYSTEM
SAWS	SOLAR ARRAY WING SIMULATOR
SC	SPACECRAFT
SCAPE	SELF-CONTAINED ATMOSPHERIC PROTECTIVE ENSEMBLE
SCO	SPACECRAFT OPERATIONS
SCS	STABILIZATION AND CONTROL SYSTEM
SHE	SUPERCRITICAL EHLIUM
SIM	SIMULATE
SIT	SOFTWARE INTEGRATED TEST
SLCC	SATURN LAUNCH COMPUTER COMPLEX
SLDS	SKYLAB LAUNCH DATA SYSTEM
SL-R	SKYLAB RESCUE

SRO	SUPERINTENDENT OF RANGE OPERATIONS
STC	SPACECRAFT TEST CONDUCTOR
STDN	SPACE FLIGHT TRACKING AND DATA NETWORK
STS	STRUCTURE TRANSITION SECTION
SV	SPACE VEHICLE
SWS	SATURN WORKSHOP
S-IC	SATURN V 1ST STAGE
S-II	SATURN 2ND STAGE
TACS	THRUST ATTITUDE CONTROL SUBSYSTEM (SWS)
TCE	TELEMETRY CHECKOUT EQUIPMENT
TCH	THRUST CHAMBER
TCP	TEST AND CHECKOUT PROCEDURE
TCS	TERMINAL COUNT SEQUENCER; THERMAL CONTROL SYSTEM (ATM)
TDDS	TELEVISION DATA DISPLAY SYSTEM
TDR	TIME DOMAIN REFLECTOMETER
TM	TELEMETRY
TRS	TIME REFERENCE SYSTEM
TSM	TAIL SERVICE MAST
TTY	TELETYPE
UDL	UP-DATA LINK
UHF	ULTRA HIGH FREQUENCY
UMB	UMBILICAL
USB	UNIFIED S-BAND
UV	ULTRAVIOLET
VAB	VEHICLE ASSEMBLY BUILDING
VCG	VECTORCARDIOGRAM
VHF	VERY HIGH FREQUENCY
VLF	VERY LOW FREQUENCY
VMGSE	VEHICLE MEASUREMENT GSE
WCIU	WORKSHOP COMPUTER INTERFACE UNIT
WITS	WEST INTEGRATED TEST STAND
WMS	WASTE MANAGEMENT SYSTEM (OWS)
W/R	WHITE ROOM
Z-LV	Z-AXIS PARALLEL TO LOCAL VERTICAL

SPACE VEHICLE TRANSFER VAB TO PAD

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DATE: MARCH 15, 1973

REVISION ORIGINAL

SL-1 TRANSFER OPERATIONS VAB TO PAD

TEST NO. SV-45051

VEHICLE SKYLAB 1

OPERATIONS INTERFACE CONTROL CHART

REF TCP SV 45051

OPERATIONAL SEQUENCE

SUPPORT

CONTROL AREAS

LIMITED ACCESS

MOVE PREF CREW ONLY

H8 AND TWRS ADJACENT TO H8, TRANSFER AISLE FROM TWR TO TWR

600 FT RADIUS OF ML AND CT TO PAD GATE

50 FT RADIUS INSIDE PP

DATE 2/8/73 LA-PLN

EFFECTIVITY SL-1

REVISION ORIGINAL

CONCURRENCE

B. W. LAUBENHEIMER LS

J.H. SLOBAR LV

H.E. WOODS SF-OPN

APPROVAL

R.E. MOSER OLO

LEGEND

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
					OPERATING STEPS	
					NOTE HAZARDOUS OPERATIONS ARE NOTED WITH THE LETTER "H" IN THE REMARKS COLUMN.	
					**********WARNING********** * * * IN THE EVENT AN * * EMERGENCY ARISES DURING * * THE SPACE VEHICLE * * TRANSFER OPERATIONS, * * THE SPACE VEHICLE TEST * * SUPERVISORS EMERGENCY * * PROCEDURES, TCP NO. * * SV-46051, SHALL BE * * IMPLEMENTED. * * * ******************************	
					NOTE TIMES SHOWN UNTIL COUNT CLOCK RESET ARE FOR REFERENCE ONLY. COUNT CLOCK IS NOT REQUIRED BUT MAY BE USED IF DESIRED AND AVAILABLE.	
					PART I TRANSFER PREPS, SV PRE-ORDNANCE PREPS, AND LV HEAVY ORDNANCE INSTALLATION.	
-1 DAY 14 HRS 0' 0"						
	171	1	CLTC	CVTS	DISCONNECTING 9099 INTERFACE CABLES.	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
-2 DAY 14 HRS 0' 0"	CONTINUED					
	171	2	CVTS	KSTC	DISCONNECTING 9099 INTERFACE CABLES.	
-1 DAY 11 HRS 0' 0"					NOTE LV PREPS FOR ORDNANCE INSTALLATION, HIGH BAY EQUIPMENT CLEARING AND CLEANING, AND VAB PLYWOOD INSTALLATION ARE SCHEDULED TO BE COMPLETED AT THIS TIME.	
	171	1	CVTS	CLTC KSTC	VERIFY READY TO PROCEED WITH SV TRANSFER OPERATIONS.	
	171	2	CLTC	CVTS	9099 INTERFACE CABLES ARE DISCONNECTED.	
	171	3	CVTS	CTSC	SPACE VEHICLE CABLES AT 9099 INTERFACE ARE DISCONNECTED.	
	171	4	CLTC	CVTS	CLEAR CONTROL AREA FOR LV ORDNANCE INSTALLATION.	
	EM PA 171	5	CVTS		ALL NON-ESSENTIAL PERSONNEL ARE TO CLEAR THE CONTROL AREA FOR SV ORDNANCE INSTALLATION.	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
-1 DAY 11 HRS 0' 0"	CONTINUED					
					**********WARNING********** * * * THE CONTROL AREA FOR SV * * ORDNANCE INSTALLATION * * CONSISTS OF HIGH BAY, * * TOWERS ADJACENT TO HIGH * * BAY, AND TRANSFER AISLE * * FROM TOWER TO TOWER, * * * **********	
	171	6	CVTS	CPSS	CLEAR ALL NON-ESSENTIAL PERSONNEL FROM THE CONTROL AREA FOR SV ORDNANCE INSTALLATION, VERIFY SAFETY PERSONNEL ARE ON STATION AND READY TO SUPPORT SV ORDNANCE INSTALLATION,	
-1 DAY 10 HRS 30' 0"						
	171	1	CVTS	CTSC	VERIFY ALL REQUIRED PERSONNEL AND EQUIPMENT ARE ON STATION READY TO SUPPORT TEST OPERATIONS.	
-1 DAY 10 HRS 0' 0"						
	171	1	CPSS	CVTS	THE CONTROL AREA IS CLEAR OF ALL NON-ESSENTIAL PERSONNEL AND SAFETY IS READY FOR START OF SV ORDNANCE INSTALLATION.	
	171	2	CVTS	CLTC KSTC	CLEAR TO PROCEED WITH ORDNANCE INSTALLATION,	H

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
-1 DAY 10 HRS 0' 0"	CONTINUED					
	EM PA					
	171	3	CVTS		THE COUNTCLOCK IS BEING RESET TO T-1 DAY, 0 HOURS, 0' 0" AND COUNTDOWN WILL BE INITIATED TO COORDINATE SV ORDNANCE INSTALLATION. 5 - 4 - 3 - 2 - 1 MARK NOTE ---- LV ORDNANCE INSTALLATION OPERATIONS PER TCP V-20032 ARE SCHEDULED TO BE ACCOMPLISHED DURING THE NEXT 24 HOURS. SWS ORDNANCE INSTALLATION IS SCHEDULED TO BE ACCOMPLISHED DURING THE NEXT 36 HOURS, TRANSFER OPERATIONS WILL CONTINUE UPON COMPLETION OF LV ORDNANCE INSTALLATION.	
- 0'0"						
	171	1	CLTC	CVTS	LV ORDNANCE INSTALLATION COMPLETE.	
	EM PA					
	171	2	CVTS		LV ORDNANCE INSTALLATION IS COMPLETE, THE CDC IS BEING RESET TO T-1 DAY, 10 HOURS, 0' 0" AND COUNTDOWN WILL BE RESUMED FOR SV TRANSFER TO PAD OPERATIONS. 5 - 4 - 3 - 2 - 1 MARK	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
					PART II	
					FINAL TRANSFER PREPS, TRANSFER, AND INITIAL PAD SECURING OPERATIONS.	
-1 DAY 10 HRS 0' 0"						
	171	1	CVTS	CPSS	LV ORDNANCE INSTALLATION IS COMPLETE. VERIFY CLEAR TO OPEN THE CONTROL AREA FOR MOVE PREP PERSONNEL.	
	171	2	CVTS	CLTC KSTC CTSC	CONTROL AREA IS OPEN FOR MOVE PREP PERSONNEL.	
					NOTE CONTINUATION OF S-IC UPPER FAIRING INSTALLATION IS SCHEDULED TO BEGIN AT THIS TIME.	
-22 HRS 0' 0"						
	171	1	KSTC	CVTS	SWS ORDNANCE INSTALLATION IS COMPLETE.	
	171	2	CVTS	CLTC	SWS ORDNANCE INSTALLATION IS COMPLETE.	
					NOTE LV AND SWS POST ORDNANCE OPERATIONS AND ROLLOUT PREPS ARE SCHEDULED TO BEGIN AT THIS TIME.	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
-20 HRS 0' 0"						
	171	1	CLTC	CVTS	REQUEST NAR S/C OPERATIONS REPORT TO ML ZERO LEVEL TO SUPPORT RECONFIGURING "KEKO" UNITS.	
	171	2	CVTS	KSTC	NAR S/C OPERATIONS IS REQUIRED ON ML ZERO LEVEL TO SUPPORT RECONFIGURING OF "KEKO" UNITS.	
-16 HRS 30' 0"						
	171	1	KSTC	CVTS	SWS ROLLOUT PREPS ARE COMPLETE.	
	171	2	CVTS	CLTC	SWS ROLLOUT PREPS ARE COMPLETE.	
-11 HRS 5' 0"						
	171	1	CVTS	KSTC	VERIFY READY FOR SA 6, 6A, 7 AND 8 SECURING IN 5 MINUTES.	
-11 HRS 0' 0"						
	171	1	CLTC	CVTS	VERIFY KSTC READY TO SECURE SERVICE ARMS 6, 6A, 7 AND 8.	
					NOTE --- SECURING OF SA 1 THRU 8 IS SCHEDULED TO BEGIN AT THIS TIME.	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
-9 HRS 30' 0"						
	171	1	CVTS	CLTC KSTC	OBSERVERS REQUIRED IN 30 MINUTES FOR RETRACTION OF PLATFORM B THRU E.	
	171	2	CVTS	CTSC	OBSERVERS WILL BE ON STATION IN 30 MINUTES FOR RETRACTION OF PLATFORMS B THRU E.	
-9 HRS 0' 0"						
	171	1	KSTC	CVTS	SWS IS READY FOR PLATFORMS B AND C RETRACTION.	
	171	2	CLTC	CVTS	LV READY FOR PLATFORMS B, C, D, AND E RETRACTION.	
	171	3	CVTS	CTSC	RETRACT VAB PLATFORMS B, C, D AND E.	
-8 HRS 15' 0"					NOTE --- PATCHING OF FIRING ROOM TO PAD OPERATIONS IS SCHEDULED TO BEGIN AT THIS TIME.	
-7 HRS 0' 0"						
	171	1	CTSC	CVTS	FINAL INSTRUMENTATION CALIBRATION IN PROGRESS AND WILL BE COMPLETE BY T-0 HOURS 0' 0".	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
-5 HRS 0' 0"					NOTE --- DISCONNECTING OF PCMU GN2 SUPPLY LINE IS SCHEDULED TO BEGIN AT THIS TIME.	
-5 HRS 30' 0"	171	1	CVTS	CLTC KSTC	OBSERVERS REQUIRED IN 30 MINUTES FOR RETRACTION OF PLATFORM A.	
	171	2	CVTS	CTSC	OBSERVERS WILL BE ON STATION IN 30 MINUTES FOR RETRACTION OF PLATFORM A.	
-5 HRS 0' 0"	171	1	KSTC	CVTS	SWS SECURING COMPLETE AND SC READY FOR PLATFORM A RETRACTION.	
	171	2	CLTC	CVTS	LV READY FOR PLATFORM A RETRACTION.	
	171	3	CVTS	CTSC	RETRACT PLATFORM A.	
	171	4	CTSC	CVTS	VAB PLATFORMS B, C, D, AND E ARE RETRACTED.	
-4 HRS 45' 0"	171	1	CTSC	CVTS	THE BOEING GN2 CALMEC VALVES MAY BE CLOSED AT THIS TIME.	
	171	2	CVTS	CLTC	CLEAR TO CLOSE THE BOEING GN2 CALMEC VALVES.	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
-4 HRS 30' 0"						
	171	1	CVTS	KSTC	VERIFY SWS READY FOR PRIMARY DAMPER CONNECTION.	
	171	2	CLTC	CVTS	VERIFY SWS READY FOR PRIMARY DAMPER CONNECTION.	H
	171	3	CTSC	CVTS	AIR CONDITIONING NOW BEING PROVIDED BY MRU.	
	171	4	CVTS	CLTC	AIR CONDITIONING NOW BEING PROVIDED BY MRU.	
-4 HRS 0' 0"						
	171	1	CTSC	CVTS	PLATFORM A RETRACTED.	
	171	2	CVTS	CLTC	PLATFORM A RETRACTED.	
	171	3	CVTS	KSTC	VERIFY PERMISSION FOR BOEING PNEUMATICS TO VERIFY CLOSED OR TO CLOSE THE 280 FOOT AND 240 FOOT LEVELS 6000 PSI GN2 SUPPLY VALVES (A66952, A1348 AND A1536) AT T-3 HRS, 0'0".	
	171	4	CLTC	CVTS	REQUEST PERMISSION FOR BOEING PNEUMATICS TO VERIFY CLOSED OR TO CLOSE THE 280 FOOT AND 240 FOOT LEVELS 6000 PSI GN2 SUPPLY VALVES (A66952, A1348 AND A1536) AT T-3 HRS 0'0".	
-3 HRS 30' 0"						
	171	1	CTSC	CVTS	REQUEST CLEARANCE TO PROPEL CT UNDER ML TO MATE POSITION.	
	171	2	CVTS	CPSS	VERIFY CLEAR TO POSITION CT UNDER ML FOR MATE.	
	171	3	CVTS	CTSC	PROPEL TRANSPORTER UNDER ML TO MATE POSITION.	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
-3 HRS 30' 0"	CONTINUED					
	171	4	CLTC	CVTS	PRIMARY DAMPER CONNECTION IS COMPLETE.	
	171	5	CVTS	KSTC	VERIFY CLOSED OR CLOSE GN2 SUPPLY VALVES ON THE 280 FOOT AND 240 FOOT LEVELS PNEUMATICS SUPPLY PANELS (P/N'S 79K01012, 79K01159-3, 79K01159-2 AND 79K01159-1); THE HE SUPPLY VALVE IN THE 240 FOOT LEVEL HE REDUCING PANEL (P/N 79K02855); AND 260 FOOT AM/MDA HE PNEUMATIC SUPPLY PANEL.	
	171	6	CLTC	CVTS	REQUEST SWS TO VERIFY CLOSED OR CLOSE GN2 SUPPLY VALVES ON THE 280 FOOT AND 240 FOOT LEVELS PNEUMATIC SUPPLY PANELS (P/N'S 79K01012, 79K01159-3, 79K01159-2 AND 79K01159-1); THE HE SUPPLY VALVE IN THE 240 FOOT LEVEL HE REDUCING PANEL (P/N 79K02855); AND 260 FOOT AM/MDA HE PNEUMATIC SYPPLY PANEL	
	171	7	CTSC	CVTS	DISCONNECTING PRIME AIR AND VENT AIR.	
	171	8	CVTS	CLTC	DISCONNECTION PRIME AIR AND VENT AIR.	
-3 HRS 0' 0"						
	171	1	CTSC	CVTS	DISCONNECTING ML FIRE ALARM SYSTEM.	
	171	2	CVTS	KSTC	VERIFY 6000 PSI GN2 SUPPLY VALVE IN VALVE PANEL 14 IS CLOSED.	
	171	3	CVTS	CLTC	6000 PSI GN2 SUPPLY VALVE IN VALVE PANEL 14 IS CLOSED.	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
-3 HRS 0' 0"	CONTINUED					
	171	4	CLTC	CVTS	BOEING CALMEC VALVES ARE CLOSED. TERMINATE AND DISCONNECT THE FOLLOWING SYSTEMS (A) ML FACILITY AIR (B) ML GN2 (C) ML GHE	
	171	5	CVTS	CTSC	BOEING CALMEC VALVES ARE CLOSED. TERMINATE AND DISCONNECT THE FOLLOWING SYSTEMS (A) ML FACILITY AIR (B) ML GN2 (C) ML GHE	H
-2 HRS 45' 0"						
	171	1	CTSC	CVTS	ANTENNA VALIDATION CHECKS ON ML/CT UHF SYSTEM WILL BE PERFORMED IN 5 MINUTES FOR APPROXIMATELY 2 MINUTES. (ML/CT OIS WILL BE LIMITED TO CH. 111 THRU 118, 121 AND 122.)	
	171	2	CVTS	CLTC KSTC	IN FIVE MINUTES OIS WILL BE DISCONNECTED ON THE ML/CT FOR APPROXIMATELY 2 MINUTES EXCEPT FOR CH. 111 THRU 118, 121 AND 122.	
-2 HRS 30' 0"						
	171	1	CTSC	CVTS	ALERT ALL LV OBSERVERS TO BE ON STATION IN 60 MINUTES FOR COMM CHECK IN SUPPORT OF ML MOVE.	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
-2 HRS 30' 0"	CONTINUED					
	171	2	CVTS	CLTC	ML AND VAB PLATFORM OBSERVERS ARE TO REPORT TO PVTS AT THE ZERO LEVEL ML STAGE MONITOR SHACK FOR OBSERVER BRIEFING IN 45 MINUTES. NOTE ---- ML AND VAB PLATFORM OBSERVERS WILL BE BRIEFED PER SKYLAB LC-39 OPERATIONS INSTRUCTIONS, KHB 8635.4.	
	171	3	CTSC	CVTS	ML/CT UHF ANTENNA VALIDATION CHECKS COMPLETE.	
2 HRS 15' 0"						
	171	1	CTSC	CVTS	DISCONNECTING ML/VAB COMM. AND INSTRUMENTATION CABLES.	
	171	2	CVTS	KSTC	DISCONNECTING ML/VAB COMM. AND INSTRUMENTATION CABLES.	
-2 HRS 02' 0"						
	171	1	CTSC	CVTS	ML/TRANSPORTER OIS WILL BE SWITCHED TO UHF IN 2 MINUTES. TRANSPORTER OIS CHANNEL ASSIGNMENTS WILL BE IN EFFECT.	
	171	2	CVTS	CLTC KSTC	ML OIS TRANSFER VAB TO CT, WILL OCCUR IN 2 MINUTES. C/T OIS CHANNEL ASSIGNMENTS WILL BE IN EFFECT..	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
	171	1	CTSC	CVTS	ML OIS-RF IS CONFIGURED TO UHF.	
	171	2	CVTS	CLTC KSTC	ML OIS TRANSFER VAB TO CT IS COMPLETE.	
	171	1	CTSC	CVTS	ML TRANSFER TO TRANSPORTER POWER WILL OCCUR IN 15 MINUTES.	
	171	2	CVTS	KSTC CLTC	ML POWER TRANSFER TO CT WILL OCCUR IN 15 MINUTES.	
	171	1	CVTS	CLTC KSTC	VERIFY READY FOR ML POWER TRANSFER FROM VAB TO CT.	
	171	2	CTSC	CVTS	VERIFY READY FOR ML TRANSFER TO CT POWER.	
	171	3	CTSC	CVTS	ML TRANSFER TO TRANSPORTER POWER COMPLETE.	
	171	4	CVTS	CLTC KSTC	ML POWER TRANSFER IS COMPLETE.	
	171	5	CTSC	CVTS	ML/VAB COMM. AND INSTRUMENTATION CABLES ARE DISCONNECTED.	
	171	6	CVTS	KSTC	ML/VAB COMM. AND INSTRUMENTATION CABLES ARE DISCONNECTED.	
	171	1	CTSC	CVTS	ML FIREX WATER IS BEING TERMINATED.	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
-1 HR 0'0"						
	171	1	CTSC	CVTS	ML/VAB FIREX WATER IS BEING DISCONNECTED.	
-30'0"						
	171	1	CLTC	CVTS	ALL SYSTEMS CLEAR FOR MOVE.	
-	171	2	CVTS	KSTC	VERIFY ALL SYSTEMS CLEAR FOR MOVE.	
	171	3	CTSC	CVTS	INS CALIBRATION IS COMPLETE.	
	171	4	CVTS	CTSC	ALL SV SYSTEMS CLEAR FOR TRANSFER OF ML/VEHICLE TO PAD.	
	171	5	CTSC	CVTS	REQUEST CLEARANCE TO JACK ML TO CLEARANCE HEIGHT.	
	171	6	CVTS	CPSS	VERIFY CLEARANCE TO JACK ML CLEAR OF MOUNTS.	
	171	7	CVTS	CTSC	JACK ML TO CLEARANCE HEIGHT.	H
					NOTE A CONTINGENCY HOLD MAY OCCUR AT THIS POINT. COUNTCLOCK WILL PICK UP AT T=0 HOURS, 0' 0" AT START OF BREAKAWAY.	
TB 1 +0'0"						
	171	1	CTSC	CVTS	ML JACKED TO CLEARANCE HEIGHT. REQUEST CLEARANCE TO PROPEL ML TO PAD.	
	171	2	CVTS	CPSS	VERIFY CLEARANCE TO TRANSFER TO PAD.	

COMM CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
	CONTINUED				
171	3	CVTS	CTSC	PROPEL CLEAR OF MOUNTING MECHANISMS AND PROCEED WITH TRANSFER OPERATIONS. REPORT PROGRESS EN ROUTE.	H
171	4	CTSC	CVTS	ML/TRANSPORTER FIRST MOTION.	
				NOTE ---- THE CLOCK TIMES IN THIS PROCEDURE ARE BASED ON T-0 BEING START OF MOVE TO PAD. THE CLOCK WILL CONTINUE INTO POSITIVE TIME AND WILL BE RESET TO T-0 HOURS, 0' 0" WHEN ML IS HARD MOUNTED AT THE PAD. MOVE TIME (BREAK AWAY TO HARD MOUNTS) IS 7 HOURS 15 MINUTES.	
171	1	CTSC	CVTS	RELEASE LVO VAB PLATFORM OBSERVERS	
171	2	CVTS	CLTC	CLEAR TO RELEASE LVO VAB PLATFORM OBSERVERS.	
171	1	CTSC	CVTS.	REQUEST CLEARANCE TO JACK ML DOWN TO MATE POSITION.	
171	2	CVTS	CPSS	VERIFY CLEARANCE TO JACK ML DOWN TO MATE POSITION.	
171	3	CVTS	CTSC	JACK ML DOWN TO MATE.	H

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
TB 2 +0'0"						
	171	1	CTSC	CVTS	ML IS DOWN HARD ON MOUNTS.	
	171	2	CVTS	CPSS	VERIFY PAD AND ML OPEN FOR NORMAL OPERATIONS.	
	EM PA 171	3	CVTS		PAD AND ML NOW OPEN FOR NORMAL OPERATIONS. THE COUNTCLOCK IS BEING RESET TO T+0 HOURS, 0' 0" AND COUNTUP INITIATED. 5 - 4 - 3 - 2 - 1 MARK	
	171	4	CTSC	CVTS	CONFIGURING ML OIS-RF TO HARDLINE.	
	171	5	CVTS	KSTC CLTC	STANDBY FOR ML OIS TRANSFER FROM CT TO PAD.	
	171	6	CLTC	CVTS	BOEING CALMEC VALVES ARE CLOSED. CONNECT AND PRESSURIZE THE ML GN2 AND GHE INTERFACE FOR GAS SAMPLING. CONNECT AND PRESSURIZE THE ML FACILITY AIR SYSTEM.	
	171	7	CVTS	CTSC	BOEING CALMEC VALVES ARE CLOSED. CONNECT AND PRESSURIZE THE FOLLOWING SYSTEMS (A) ML FACILITY AIR (B) ML GN2. (C) ML GHE	H
+15'0"						
	171	1	CTSC	CVTS	ML POWER TRANSFER TO PAD POWER WILL OCCUR IN 15 MINUTES.	
	171	2	CVTS	CLTC KSTC	POWER TRANSFER CT TO PAD WILL OCCUR IN 15 MINUTES.	
	171	3	CTSC	CVTS	ML OIS-RF CONFIGURED TO HARDLINE.	

	COMM CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
	CONTINUED					
	171	4	CVTS	CLTC KSTC	ML OIS TRANSFER COMPLETE. RETURN TO NORMAL OPERATING CHANNELS.	
	171	1	CVTS	CLTC KSTC	VERIFY READY FOR ML POWER TRANSFER FROM CT TO PAD.	
	171	2	CTSC	CVTS	VERIFY READY TO TRANSFER ML POWER FROM CT TO PAD POWER.	
	171	3	CTSC	CVTS	ML TRANSFER TO PAD POWER IS COMPLETE.	
	171	4	CVTS	CLTC KSTC	ML POWER TRANSFER TO PAD POWER IS COMPLETE.	
					NOTE CONNECTION OF PCMU GN2 SUPPLY LINE ECS DUCTS, AND EXTENSION OF SERVICE ARM TIPS ARE SCHEDULED TO BEGIN AT THIS TIME.	
	171	5	CVTS	CLTC	CLEAR TO EXTEND SERVICE ARM TIPS.	
	171	6	CVTS	CLTC	CLEAR TO CONNECT HARDLINE CABLES FROM PAD TO ML (9099 INTERFACE CABLE).	
	171	1	KSTC	CVTS	SWS SECURING IS COMPLETE.	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
+1 HR 0' 0"	CONTINUED					
					NOTE --- [illegible]REX WATER IS SCHEDULED TO [illegible]E INITIATED AT THIS TIME.	
+1 HR 30' 0"						
	171	1	CTSC	CVTS	TRANSPORTER PROPELLING TO PARK POSITION.	
	171	2	CVTS	CPSS	TRANSPORTER PROPELLING TO PARK [illegible]TION.	
	171	3	CTSC	CVTS	[illegible]REX SYSTEM OPERATIONAL.	
+3 HRS 0' 0"						
	171	1	CTSC	CVTS	ML/PAD COMM. AND INSTRUMENTATION CABLES ARE CONNECTED.	
	171	2	CVTS	KSTC	ML/PAD COMM. AND INSTRUMENTATION CABLES ARE CONNECTED.	
+3 HRS 30' 0"						
	171	1	CLTC	CVTS	LAUNCHER AND TOWER GHE AND GN2 PNEUMATIC SYSTEMS ARE PRESSURIZED.	
	171	2	CVTS	KSTC	LAUNCHER AND TOWER GHE AND GN2 [illegible]NEUMATIC SYSTEMS ARE PRESSURIZED.	

TIME	COMM. CH.	SEQUENCE	COMMAND STA.	RESPONSE STA.	DESCRIPTION	REMARKS
+16 HRS 0' 0"						
	171	1	CLTC	CVTS	REQUEST NAR S/C OPERATIONS REPORT TO ML ZERO LEVEL TO SUPPORT SWITCHING OF NOSE CONE ECS FROM "KEKO" UNITS TO LV ECS.	
	171	2	CVTS	KSTC	NAR S/C OPERATIONS IS REQUIRED ON ML ZERO LEVEL TO SUPPORT SWITCHING OF NOSE CONE ECS FROM "KEKO" UNITS TO LV ECS.	
					END OF SV OPERATIONS, VAB TO PAD.	

APPENDIX A

EMERGENCY COMMUNICATIONS PROCEDURES

EMERGENCY COMMUNICATIONS PROCEDURES

NOTE

UNDER NORMAL CONDITIONS, RADIO NET 104 WILL BE UTILIZED AS BACK-UP COMMUNICATIONS.

A. IN THE EVENT OF AN OIS MICROWAVE FAILURE BETWEEN THE LCC AND THE TRANSPORTER

1. THE ML OIS-RF WILL BE CONFIGURED IMMEDIATELY TO OPERATE WITH THE TRANSPORTER SYSTEM.

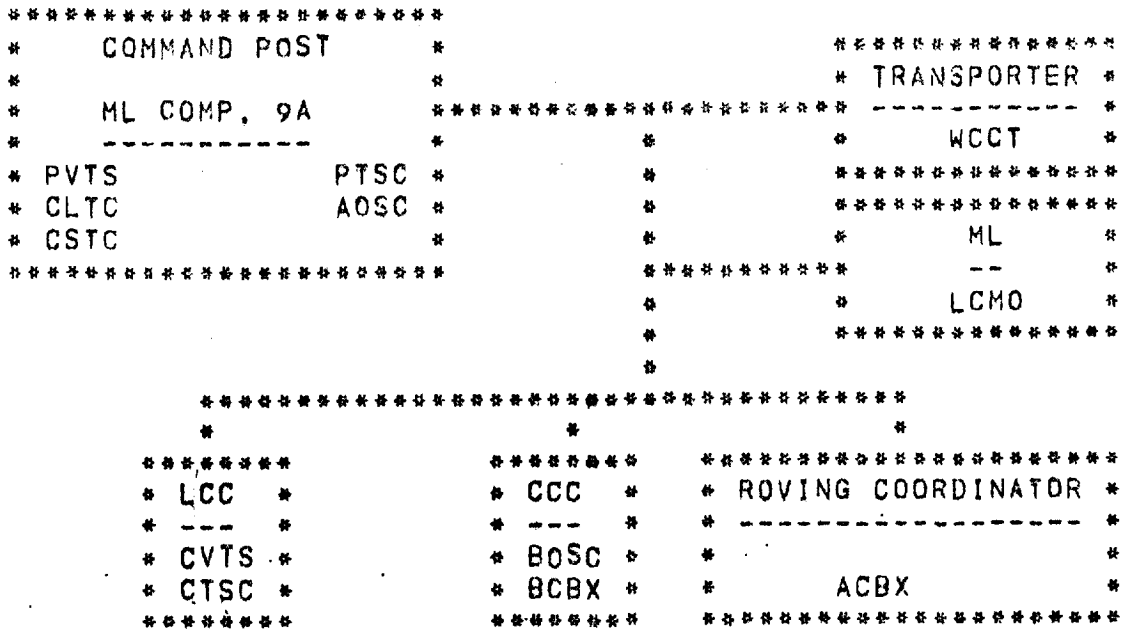
2. A COMMAND POST WILL BE ESTABLISHED IN COMPARTMENT 9A OF THE MOBILE LAUNCHER AND COMMUNICATIONS WILL CONTINUE AS SHOWN BELOW. THE OPERATION WILL RESUME AS SOON AS A COMPLETE COMM CHECK HAS VERIFIED ALL STATIONS READY.

3. THE 104 NET RADIO SYSTEM WILL BE UTILIZED TO MAINTAIN COMMUNICATIONS BETWEEN THE TRANSPORTER/ML UNIT AND THE LCC OR OTHER OUTLYING AREAS.

NOTE

THE TEST SUPPORT CONTROLLER REPRESENTATIVE ON-BOARD THE TRANSPORTER WILL DETERMINE THE TOTAL EFFECT OF THE FAILURE AND INSTRUCT THE TRANSPORTER EITHER TO STOP, OR CONTINUE OPERATION UTILIZING 104 NET COMMUNICATIONS TO THE CCC BASE STATION.

IF AN OPERATIONAL IMPACT IS EVIDENT, SUPERVISION OF THE OPERATION WILL BE REORGANIZED AS FOLLOWS



EMERGENCY EVACUATION

THE APPLICABLE PA SYSTEM WILL BE UTILIZED FOR TRANSMISSION OF ANY EMERGENCY EVACUATION INFORMATION.

END OF TEST PROCEDURE SV-45051

LA-PLN-1 DISTRIBUTION FOR TCP SV-45051 (SL-1)
AND TCP SV-45101 (SL-2) SPACE VEHICLE TRANSFER OPERATIONS

1	DD-EDD	WHITE
2	IN-MSD-12	STEVENS
3	IN-OIS-1	PARRISH
8	IN-OMO	COONCE
1	IS-DOC-2A	LOVAN
1	IS-PEM	DALEY
1	IS-PEM-B	JANSEN
1	IS-PEM-1	GRAY
1	IS-PEM-2	CULLEN
1	IS-PEM-22	WERDEN
1	IS-PEM-4	JAMIESON
3	IS-SEC	HORNER
1	IS-TSM	BROWN
1	LA-PLN	MOSER
6	LCC 4R8	SCHICK
1	LS-OPN	PAGE
1	LS-OPN-2	CAROTHERS
1	LS-OPN-3	PROFFITT
1	LV-A	RIGELL
1	LV-GDC	LEALMAN
1	LV-OMO-1	OGLESBY
2	LV-OMO-3	YOUMANS
1	LV-PLN	NAGLE
1	SF-OPN	WOODS
1	SO	GORMAN
1	SO-OPN-1	PYLES
1	TS	MINDERMAN
1	TS-MET	AMMAN
1	TS-NTS-1	HUBER
1	TS-OSM	GRAMLING
2	TS-OSM	SMITH
3	KM-MGR	WILLIAMS
1	KM-LPG	ROSENTHAL
3	AFETR, DONO	
2	AFETR, DOOP	

1	AFETR, DOOT	
2	AFETR, PAPP MU595	
1	MSFC/MO-E	KIMERY
3	MSFC/MO-OL	LADNER
1	OMSF/MAO	HOLCOMB
2	BEN-2100, LCC 1R18	AMES
3	BEN-2320, VAB 1B6	POPE
1	BEN-2350, HQ 1503	COMPTON
1	BEN-4120, HQ 2549	REED
2	BOFL-73, O&C 2116	LARSON
1	BOFL-73, O&C 2116	WEINBERG
5	BOFM-36, VAB 2L4	MELTON
2	BOFM-39, VAB 2L10	SCHOLZ
1	BOFO-31, O&C 3121	KRAMP
2	BOFS-00, K6-1045	BALLARD
2	BOFT-00, VAB 7E14	MAXWELL
1	CHRY-16, VAB 15B7	O'DELL
1	FEC-200, MC-336, 123	STEIN
1	FEC-300, CIF 310	DELL
1	FEC-810, M6-339	BOESSOW
1	FEC-820, M6-339, 202	TVETER
1	FEC-870, M6-138, 117	DEETER
1	GE-AGS, O&C 3018	FOWLER
3	IBM-G18, VAB 2N5	WITT
2	MDAC, O&C 3013	POWELL
1	MDAC, O&C 3110	SCHNEIDER
1	MDAC, O&C 3110	SHANE
2	MDAC, O&C 3141	LOUPE
1	MDAC, VAB 3K11-B	BENNETT
1	MMC-2, O&C 1032	GLAHN
1	MCC-5, O&C 1013	WIRTH
1	MCC-7, O&C 1047	DAY
1	NR, ZK-2B, VAB 2M2	ROPER
1	NR, ZK-20, O&C 3079	NURNBERG
1	NR, ZK-49, O&C 3088	CLOYD
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